

REMARKS

Claims 1-17 are pending in this application. In the Office Action, Claims 1-8, 10-11, and 15-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,061,354 to Morikawa et al. Claim 9 was rejected as being unpatentable over Morikawa et al. and further in view of U.S. Patent 6,590,909 to Stacey et al. Claims 12-14 were rejected as being unpatentable over Morikawa et al., and further in view of U.S. Patent 5,724,354 to Tremel et al. In addition, Claims 1-16 were rejected under 35 U.S.C. §112, paragraph 2, as being indefinite. New Claim 17 has been added.

Having carefully reviewed the cited art and the comments provided in the Office Action, applicants request reconsideration and allowance of the claims as amended in the current response.

I. Claim Rejections Under 35 U.S.C. §112

The Office Action correctly stated that the present application is a translation of a foreign patent application. Applicants have amended the claims to meet the requirements of 35 U.S.C. §112, paragraph 2. In addition, applicants have made corrections in all claims in order to avoid antecedent issues and other minor informalities. Claim 3 has been cancelled in view of amended Claim 1.

II. Claim Rejections Under 35 U.S.C. §103(a)

The Office Action rejected Claims 1-8, 10-11, and 15-16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,061,354 to Morikawa et al.

A. Independent Claim 1

With regard to independent Claim 1, the Office Action asserts that the Morikawa patent teaches, in an ATM system, extracting packets from a low-bit-rate artery (referring to Figures 1A and 1B, and Col. 1, line 3 and Col. 1, line 60 of Morikawa) and inserting them into the cells of

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another ATM channel (referring to Col. 2, lines 4+ and Col. 4, lines 60+). Applicants respectfully disagree for the following reasons.

Morikawa teaches a multiplex transmitter for loading a standard ATM cell with multiplexed micro-frames which are shorter than the standard ATM cell. (Morikawa, Abstract.) However, Morikawa fails to teach the "low-bit-rate artery" feature of Claim 1 as a low-bit-rate artery is not mentioned in Morikawa. In contrast, the present application is specifically directed toward a method for transmitting data through a low-bit-rate artery (see, e.g., Application, p. 3, lines 28-30; p. 4, lines 4-7 and 26-29).

Furthermore, applicants amended Claim 1 to include additional features concerning the process of extraction and insertion of data in a multiplexed mode for transmission via a low-bit-rate artery. In contrast, Morikawa teaches a very specific type of data extraction, namely, "extracting micro-frames in the multiplex queuing buffers when a predetermined extracting time comes, or when a number of the predetermined micro-frames in each of the multiplex queuing buffers reaches a predetermined number." (Morikawa, Col. 1, lines 65-68, Col. 2, lines 1-2). Morikawa fails to teach all of elements recited in amended Claim 1.

Because Morikawa fails to teach each of the elements of Claim 1, as amended, it does not render Claim 1 obvious, regardless of the Official Notice taken by the Examiner. The subject matter set forth in Claim 1, and the manner in which the subject matter is arranged, is neither taught nor suggested by Morikawa, nor is it evident from the Official Notice how virtual circuits used with prior art ATM channels are to be configured according to the subject matter of Claim 1. Accordingly, applicants request allowance of Claim 1.

B. Dependent Claims 2 and 4-10

Dependent Claims 2 and 4-10 depend from independent Claim 1. As discussed above, Morikawa fails to teach each of the limitations of independent Claim 1. Applicants submit that

Claims 2 and 4-10 are patentable over Morikawa for the same reasons as Claim 1. Accordingly, Claims 2 and 4-10 are likewise allowable over Morikawa.

C. Independent Claim 11

Independent Claim 11 has been rejected based on the rejection of Claim 1. (Office Action, p. 4.) Therefore, applicants' arguments regarding Claim 1, presented above, pertains to Claim 11 as well.

Furthermore, Claim 11 has been amended to further distinguish over the prior art cited in the Office Action. Applicants amended Claim 11 to include additional features set forth in the present application (see, e.g., p. 8, lines 21-30; p. 9, lines 1-29; p. 12, lines 11-26, among other portions of the specification). Because Morikawa fails to teach each of the elements of Claim 11, as amended, Claim 11 is believed to be patentable over Morikawa. Accordingly, applicants request the allowance of Claim 11.

D. Dependent Claims 12-14

Dependent Claims 12-14 depend from independent Claim 11. As discussed above, Morikawa fails to teach all of the elements of independent Claim 11. Applicants submit that Claims 12-14 are patentable over Morikawa for at least the same reasons as Claim 11.

Furthermore, regarding Claim 12, the Office Action acknowledges that Morikawa does not teach the use of a shuffler, but alleges that Tremel (U.S. Patent 5,724,354) teaches the use of a shuffler in an ATM system. Applicants respectfully submit that Tremel only teaches the location and use of a device configured to insert characteristic cells into a flow of ATM type cells, with respect to a shuffler or a switch, i.e. placing said device upline from a shuffler or a switch in the circuit (see Tremel, Col. 6, lines 60-64). Thus, while mentioning a shuffler in the context of its location relative to the claimed device, Tremel fails to teach the actual use of a shuffler in conjunction with a multiplexer as part of an ATM switch applied to a network with a

low-bit-rate artery, as is provided in the present application and set forth in amended Claim 12. (See also, for example, p. 15, lines 10-29 of the present application). Therefore, Tremel fails to teach the "shuffler" element of Claim 12, as amended. Accordingly, for above mentioned reasons, Claims 12-14 are likewise allowable over Morikawa.

E. Independent Claim 15

Independent Claim 15 has been rejected based on the rejection of Claim 1. In addition, the Office Action asserted that Morikawa teaches the multiplexer located upstream of a low-bit-rate artery. (Office Action, p. 4).

Claim 15 has been amended to reflect the fact that the device referred to in Claim 15 is a device as recited in Claim 11 and thus comprises the elements recited in that claim, such as a multiplexer having a packetization function and a switching function, wherein the switching function is adapted for switching packets carried in basic transmission units among several virtual lines constituted by connections in multiplexed or non-multiplexed mode. Morikawa, while teaching a "multiplexer", fails to teach a multiplexer with the "packetization function" and "switching function" elements of Claim 15, as amended. Therefore, Claim 15, is patentable over Morikawa. Accordingly, applicants request withdrawal of rejection and allowance of Claim 15.

F. Dependent Claim 16

Dependent Claim 16 depends from independent Claim 15. As discussed above, Morikawa fails to teach each of the limitations of independent Claim 15 and Claim 15 is patentable over Morikawa. Accordingly, Claim 16 is likewise allowable over Morikawa.

III. New Claim 17

Responding to the Office Action, applicants have added new Claim 17 that further defines the network recited in Claim 15. Claim 17 is in patentable condition, both for its dependence on allowable Claim 15, and for the additional features recited therein.

CONCLUSION

In view of the foregoing amendments and remarks, applicants submit that the above-identified patent application is in condition for allowance. Reconsideration of the application and allowance of the claims at an early date are solicited. If the Examiner has any questions or comments concerning this matter, he is invited to contact the undersigned counsel at the number provided below.

Respectfully submitted,

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